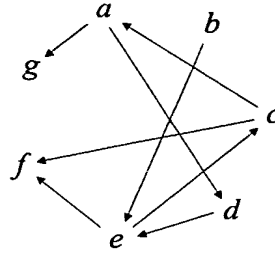


Inputs				Outputs (corresponding to segments)							
$x_3$	$x_2$	$x_1$	$x_0$	$a$	$b$	$c$	$d$	$e$	$f$	$g$	display
0	0	0	0	1	1	1	1	1	1	0	<b>0</b>
0	0	0	1	0	1	1	0	0	0	0	<b>1</b>
0	0	1	0	1	1	0	1	1	0	1	<b>2</b>
0	0	1	1	1	1	1	1	0	0	1	<b>3</b>
0	1	0	0	0	1	1	0	0	1	1	<b>4</b>
0	1	0	1	1	0	1	1	0	1	1	<b>5</b>
0	1	1	0	0	0	1	1	1	1	1	<b>6</b>
0	1	1	1	1	1	1	0	0	0	0	<b>7</b>
1	0	0	0	1	1	1	1	1	1	1	<b>8</b>
1	0	0	1	1	1	1	0	0	1	1	<b>9</b>

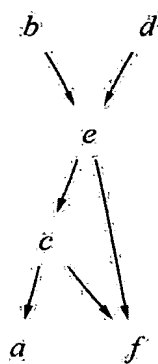
FIGURE 1

$$\begin{aligned}
a &= \bar{x}_0 \bar{x}_3 \bar{c} + \bar{x}_1 c \\
b &= \bar{x}_0 (\bar{x}_1 \bar{x}_2 + x_1 \bar{x}_3) \\
c &= x_0 x_2 \bar{x}_3 + \bar{x}_2 (\bar{x}_1 x_3 + e) \\
d &= x_1 \bar{x}_2 \bar{x}_3 + a(x_2 + x_3) \\
e &= x_0 \bar{x}_3 d + b \\
f &= \bar{x}_2 c + \bar{x}_3 \bar{e} \\
g &= x_0 \bar{x}_3 + a
\end{aligned}$$



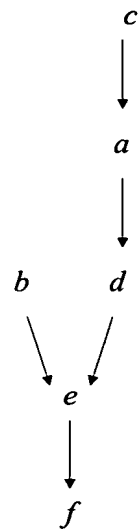
**Figure 2**

$$\begin{aligned}
 a &= c &= 0 \\
 b &= 0 \\
 c &= e &= 0 \\
 d &= 0 &= 0 \\
 e &= b + d &= 0 \\
 f &= \bar{e} + c &= 1 \\
 g &= 1
 \end{aligned}$$

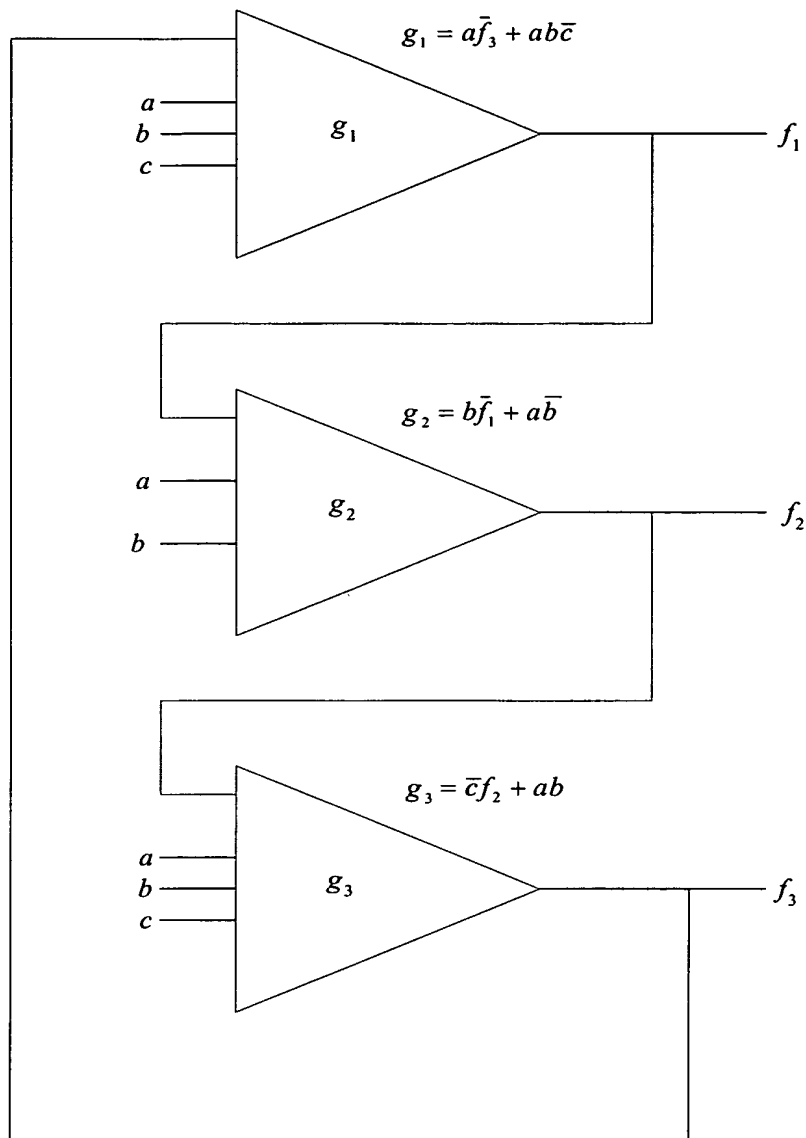


**FIGURE 3**

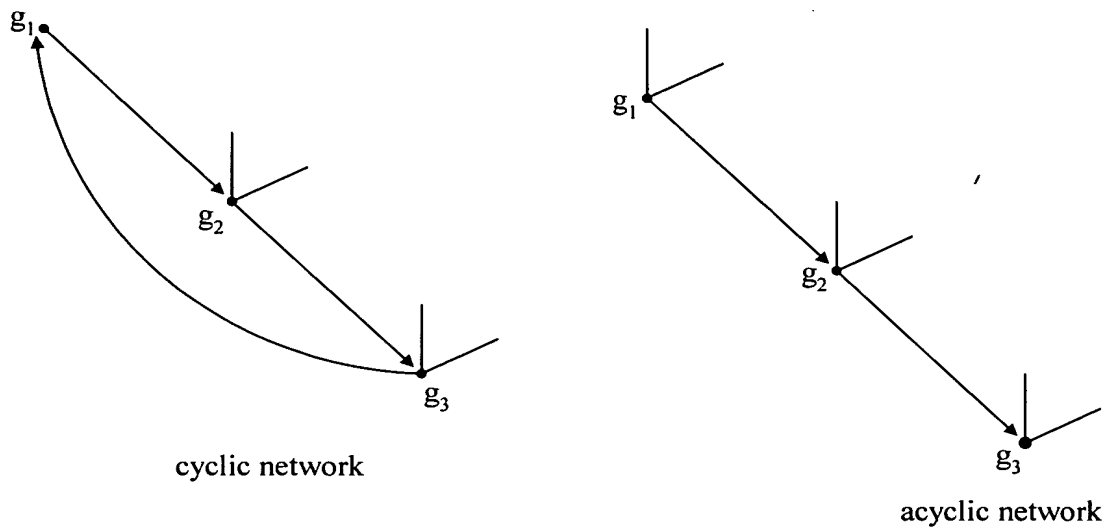
$$\begin{aligned}
 a &= c &= 1 \\
 b &= 0 \\
 c &= 1 \\
 d &= a &= 1 \\
 e &= b + d &= 1 \\
 f &= \bar{e} &= 0 \\
 g &= 1
 \end{aligned}$$



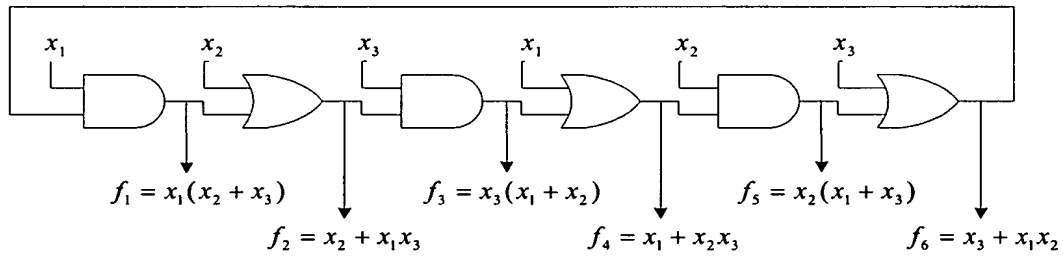
**FIGURE 4**



**Figure 5**

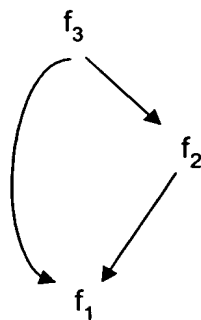


**FIGURE 6**



**FIGURE 7**

$$\begin{aligned}f_1 &= \bar{x}_2 x_3 + \bar{f}_2 f_3 \\f_2 &= \bar{x}_1 \bar{x}_2 \bar{x}_3 + x_1 \bar{f}_3 \\f_3 &= \bar{x}_3 (\bar{x}_1 + \bar{x}_2) + \bar{x}_1 \bar{x}_2\end{aligned}$$



**FIGURE 8**



$$\begin{aligned} f_1 &= \bar{x}_2 x_3 + \tilde{f}_2 f_3 \\ f_2 &= x_1 \tilde{f}_3 + \bar{x}_3 \tilde{f}_1 \\ f_3 &= f_1 \tilde{f}_2 + \bar{x}_2 \bar{x}_3 \end{aligned}$$

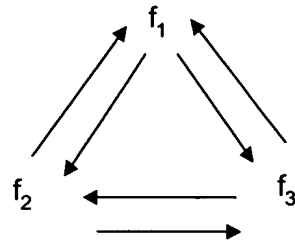
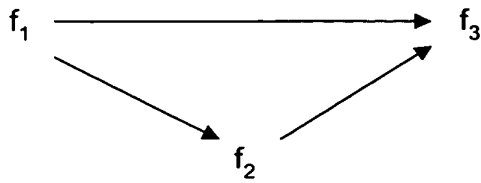
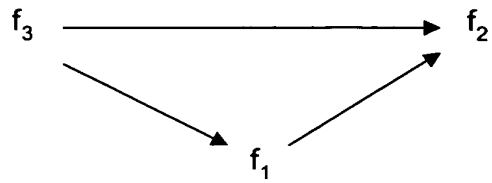


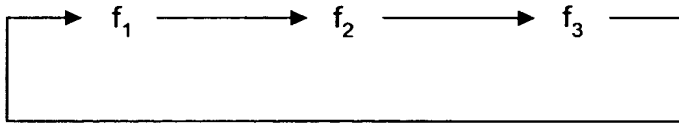
FIGURE 9



**FIGURE 10**



**FIGURE 11**



**FIGURE 12**

$f_1$	$f_1$	$f_1$
$\{f_2, f_3\} : g_1^{(1)}$	$\{f_2, f_3\} : g_1^{(1)}$	$\{f_2, f_3\} : g_1^{(1)}$
$\{f_2\} : g_1^{(2)}$	$\{f_2\} : g_1^{(2)}$	$\{f_2\} : g_1^{(2)}$
$\{f_3\} : g_1^{(3)}$	$\{f_3\} : g_1^{(3)}$	$\{f_3\} : g_1^{(3)}$
$0 : f_1$	$0 : f_1$	$0 : f_1$

FIGURE 13

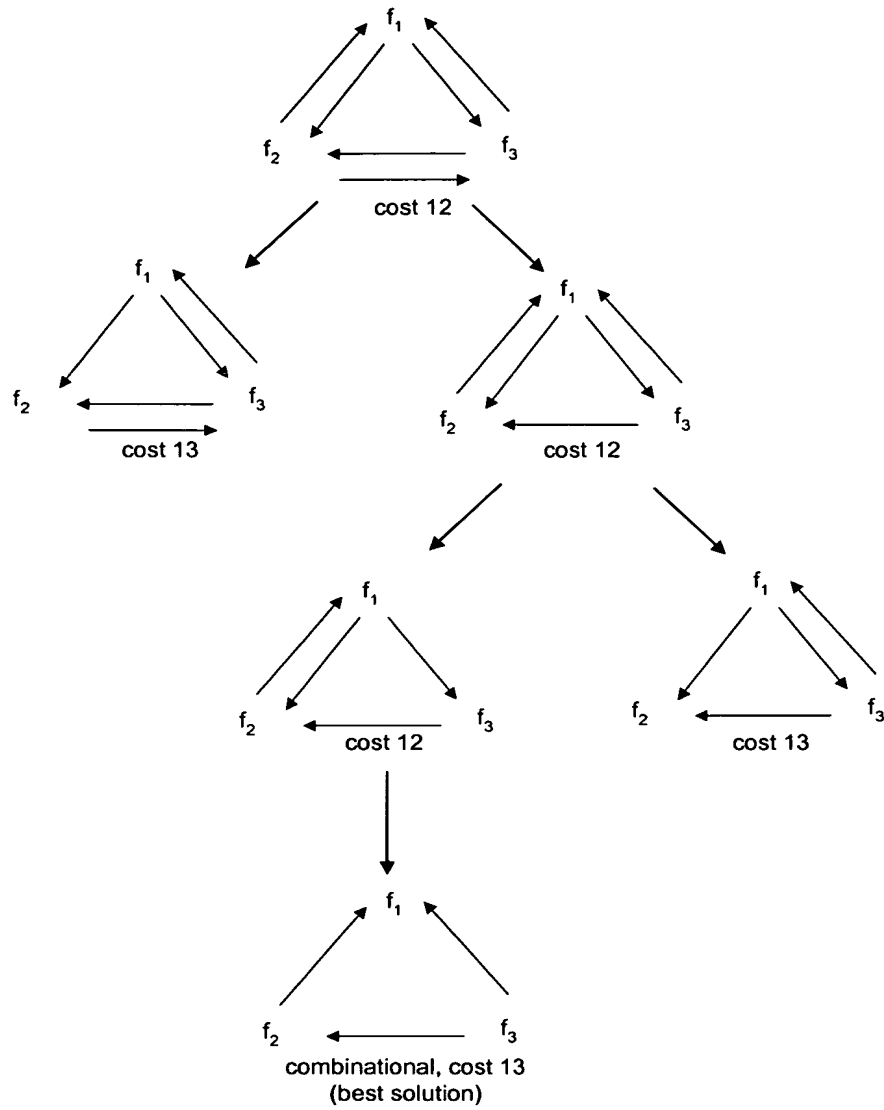


FIGURE 14

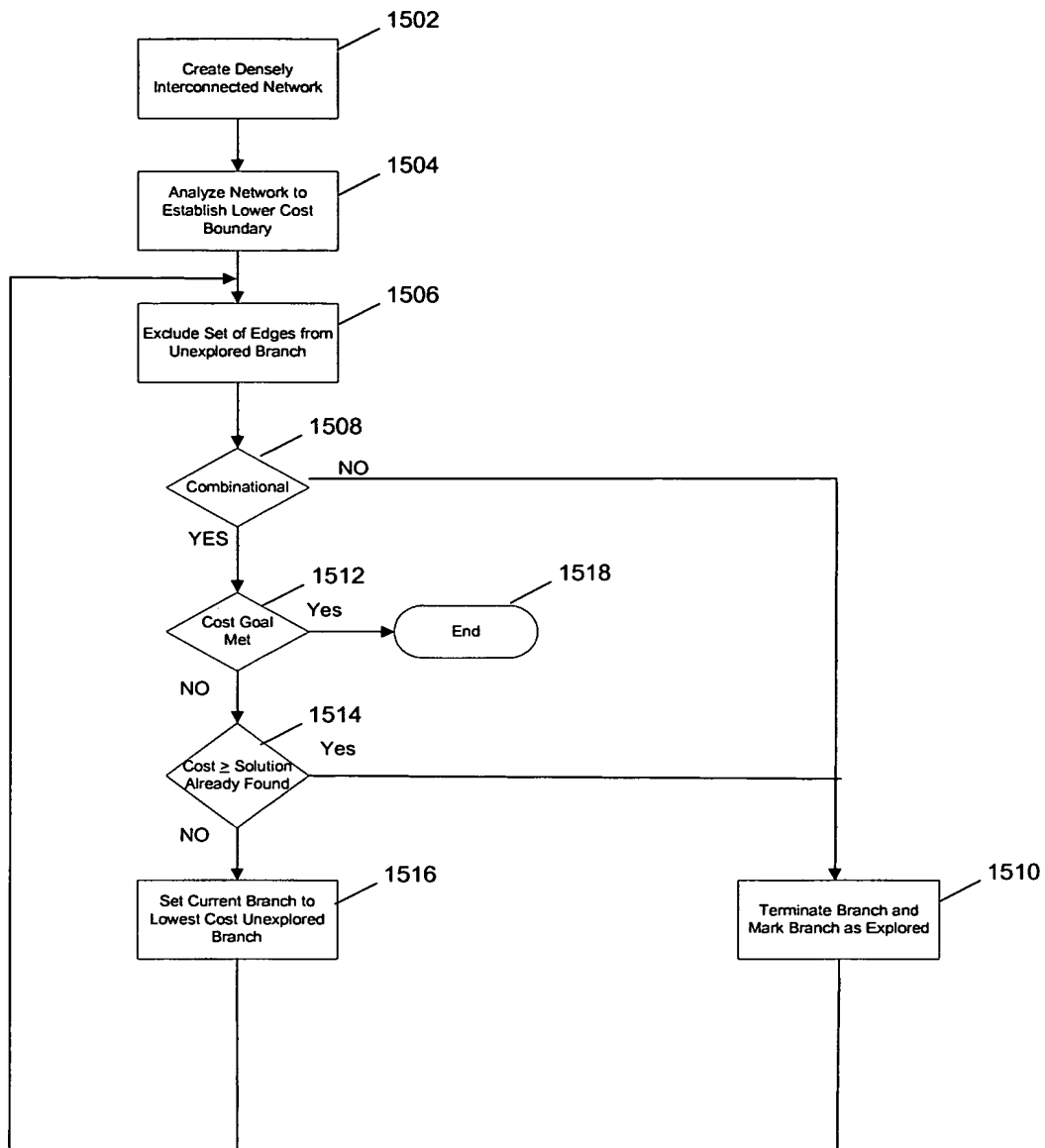


FIGURE 15

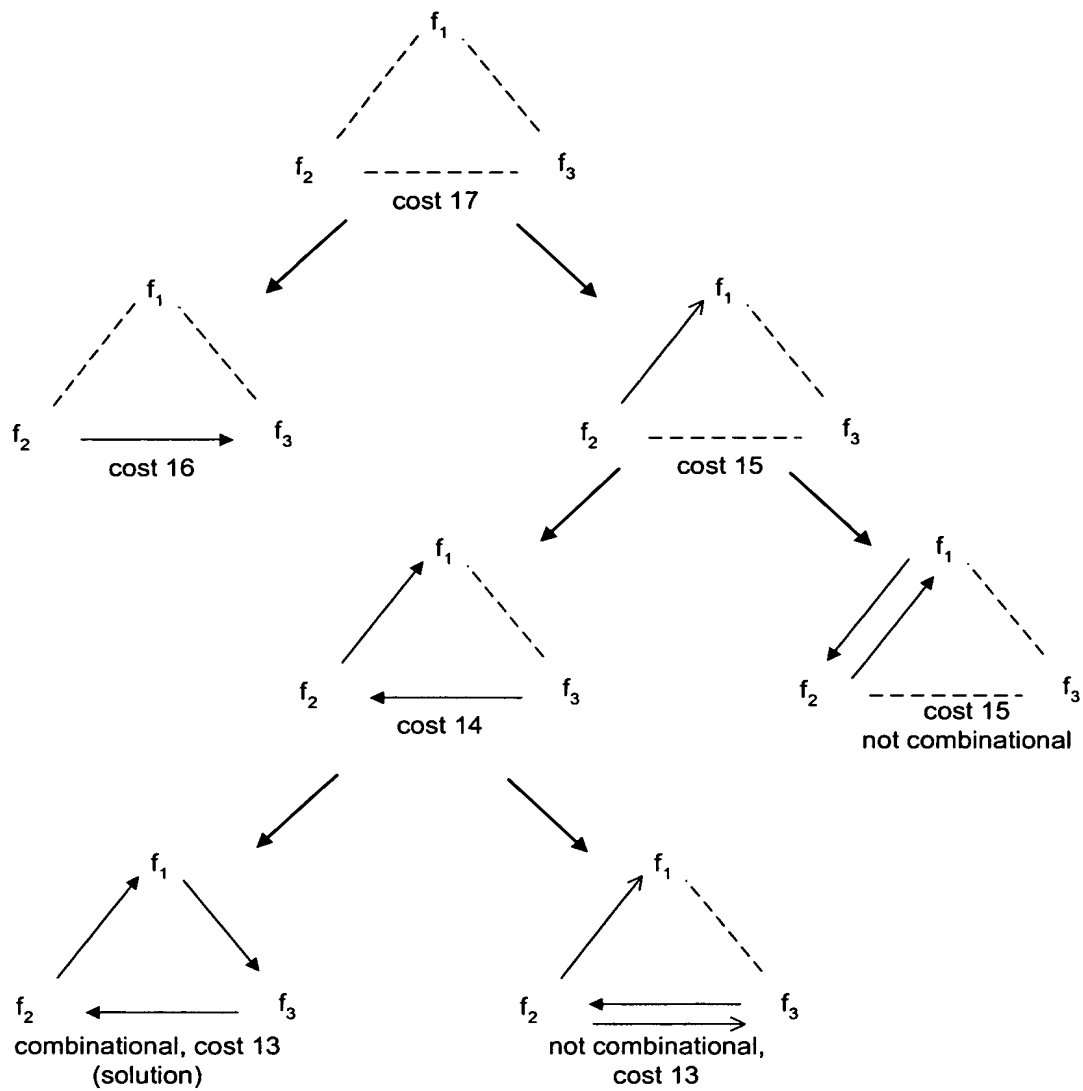


FIGURE 16



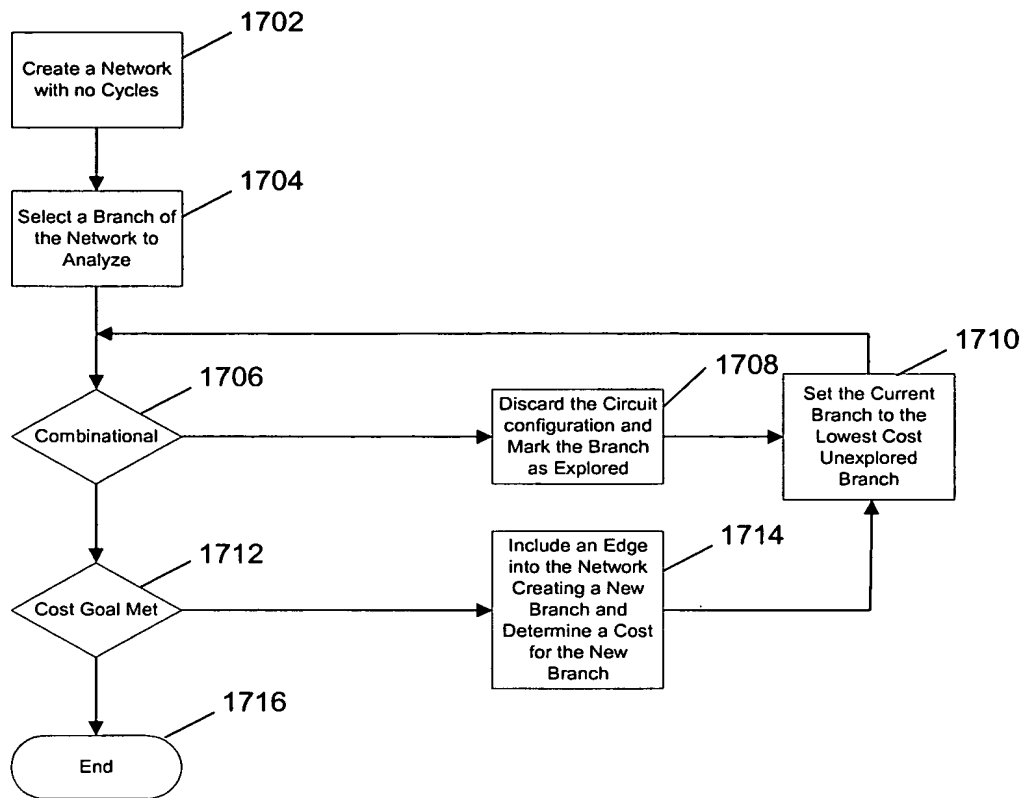
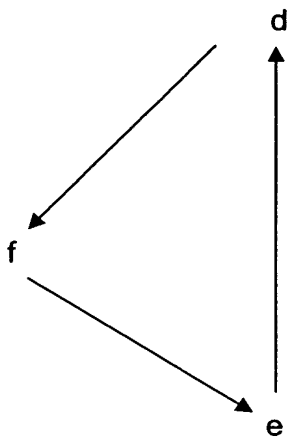
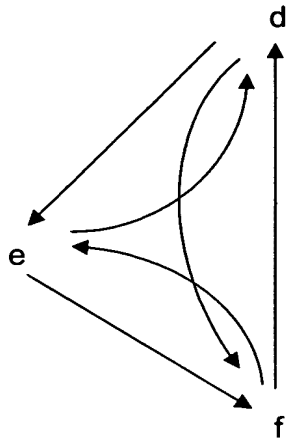


FIGURE 17



**FIGURE 18**



**FIGURE 19**

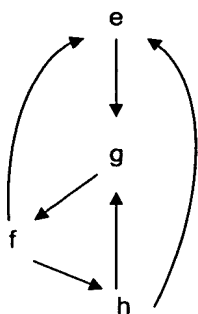


FIGURE 20A

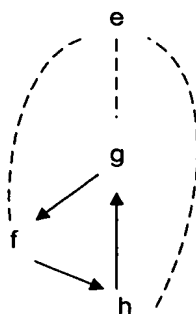


FIGURE 20B

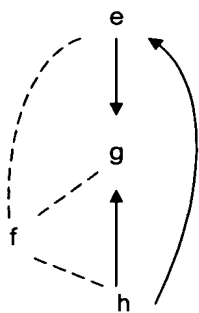


FIGURE 20C

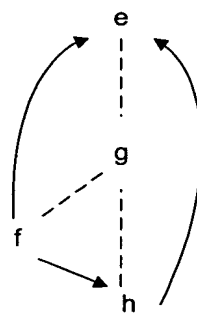


FIGURE 20D

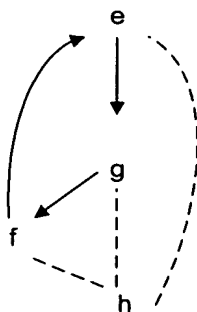
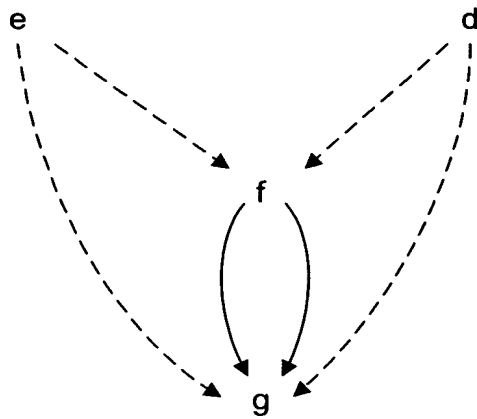
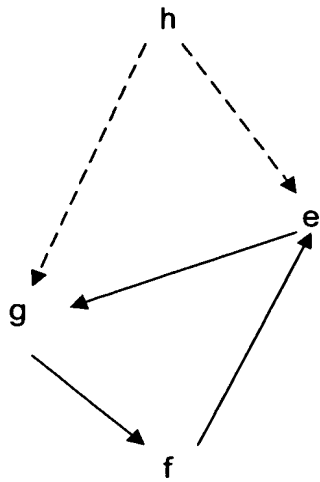


FIGURE 20E



**FIGURE 21**



**FIGURE 22**

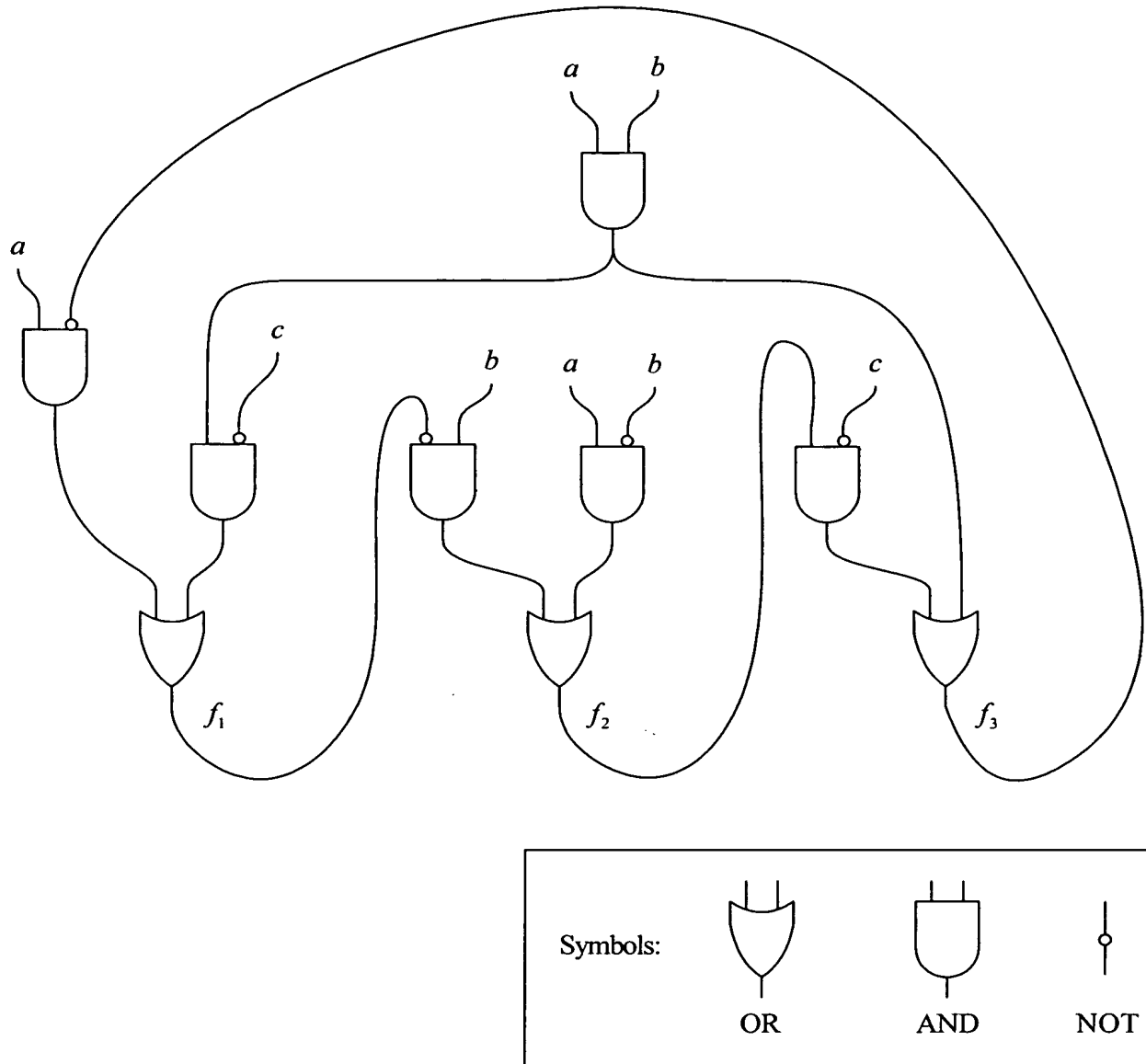


Figure 23

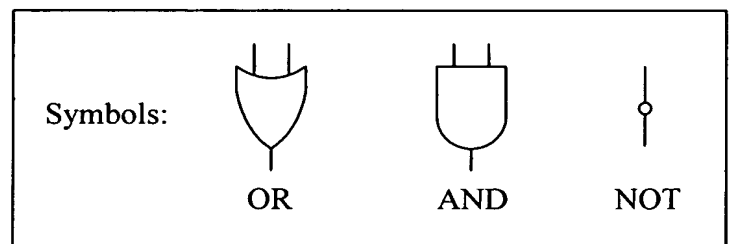
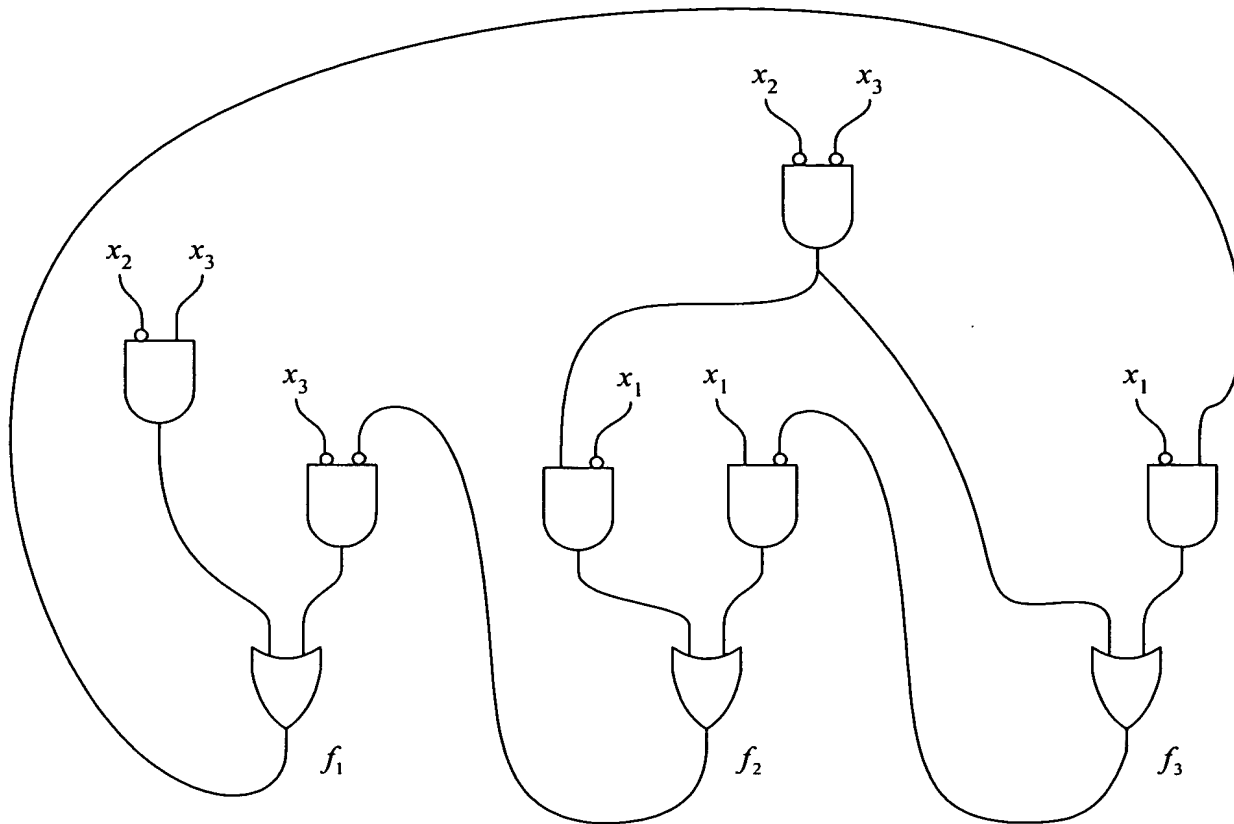


Figure 24



$$f_1 = \bar{x}_3 \bar{f}_2 + \bar{x}_2 x_3$$

$$f_2 = \bar{x}_1 \bar{x}_2 \bar{x}_3 + \bar{x}_1 \bar{f}_3$$

$$f_3 = \bar{x}_1 f_1 + \bar{x}_2 x_3$$

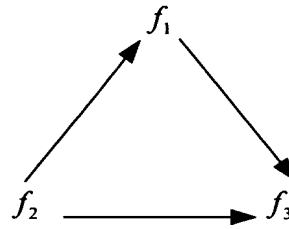


Figure 25

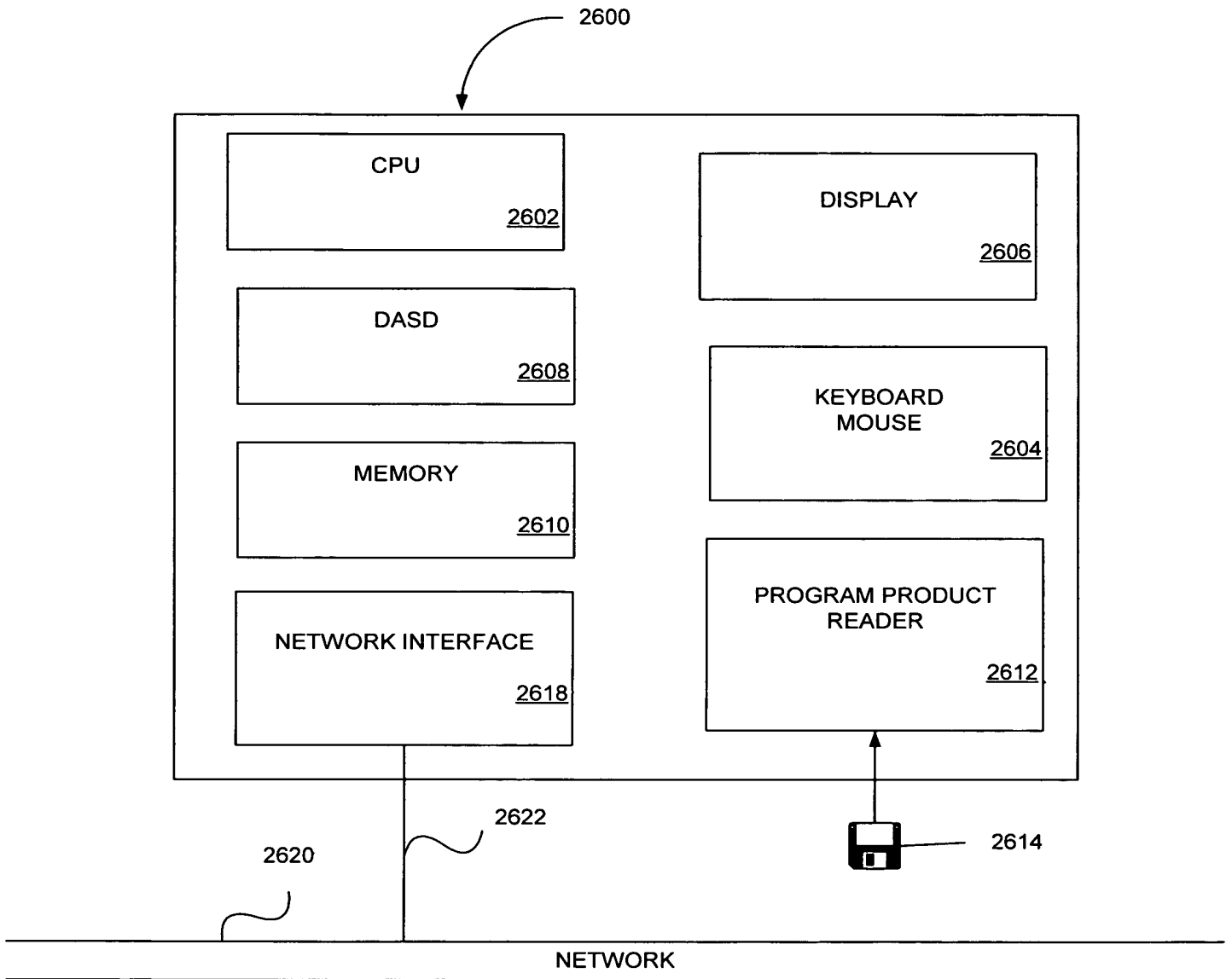


FIG. 26